

TM 11-5855-209-23

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

ORGANIZATIONAL AND DS MAINTENANCE
MANUAL
NIGHT VISION SIGHT
MINIATURIZED AN/PVS-3

This copy is a reprint which includes current
pages from Changes 1 through 3.

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ORGANIZATIONAL AND DS MAINTENANCE MANUAL
NIGHT VISION SIGHT, MINIATURIZED AN/PVS-3

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1-1. Scope

a. This manual contains organizational and direct support (DS) maintenance instructions for Night Vision Sight AN/PVS-3 and AN/PVS-3A (night sights). It includes basic functioning of the night sight, troubleshooting, and removal and replacement procedures for parts available at the organizational and DS category of maintenance.

b. The maintenance allocation chart (MAC) appears in appendix B. The repair parts and special tools list appears in appendix C. Appendix C is current as of 13 October 1971.

c. Operating instructions are contained in TM 11-5855-209-10.

NOTE

For applicable forms and records, see paragraph 1-3, TM 11-5855-209-10.

1-2. Indexes of Publications

a. *DA Pam 310-4*. Refer to the latest

issue of *DA Pam 310-4* to determine whether there are new editions, changes, or additional publications pertaining to the equipment.

b. *DA Pam 310-7*. Refer to *DA Pam 310-7* to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Reporting of Equipment Manual Improvements

Reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications) and forwarded direct to Commanding General, U.S. Army Electronics Command, ATTN: AMSEL-MA-S, Fort Monmouth, N. J., 07703.

Section II. FUNCTIONING OF EQUIPMENT

1-4. Objective Lens Assembly (fig. 3-2)

The objective lens assembly (2) used the available light of the night sky to focus an image of the scene being viewed on the front screen of the image intensifier tube (14). Under nighttime illumination conditions, this image may be very dim and not visible to the naked eye. Focusing of the image is accomplished by varying the distance of the image intensifier tube (14) from the objective lens assembly.

1-5. Image intensifier Tube (fig. 3-2)

The image intensifier tube (14) receives the dim image from the objective lens assembly (2), amplifies it, and displays the image on the rear screen of the tube. The brightness of the image is amplified to such a degree it can be seen with the naked eye. Power for operation of the image intensifier tube is supplied by the 2.8-volt battery tray (10).

1-6. Eyepiece Assembly
(fig. 3-2)

The eyepiece assembly (18) magnifies the image displayed on the rear screen of the image intensifier tube (14). Focusing of the image is accomplished by varying the distance of the eyepiece assembly from the rear screen of the image intensifier tube.

CHAPTER 2

ORGANIZATIONAL MAINTENANCE

2-1. Scope of Organizational Maintenance

The maintenance duties assigned to the organizational maintenance personnel are listed below together with reference to the paragraphs covering the specific maintenance duty. These duties are performed in addition to those given in the operator's daily preventive maintenance checks and services chart (TM 11-5855-209-10).

a. Monthly preventive maintenance checks and services (para 2-3).

b. Removal and replacement of eyeshield (para 2-5).

c. Installation and removal of the bore-sight mount (para 2-6 and 2-7).

d. Installation and removal of the M-14 Adapter Bracket (para 2-8).

e. Installation and removal of the M-16 Adapter Bracket (para 2-9).

2-2. Tools, Materials, and Test Equipment

A small screwdriver is the only tool required. A lint free cloth (FSN 8305-170-5062) is required for general cleaning. No test equipment is required for organizational maintenance of the night sight.

2-3. Organizational Monthly Preventive Maintenance Checks and Services

Sequence No.	Item to be inspected	Procedure	Remarks or reference
1 ^a	Eye-piece	a. Remove eyeshield b. Clean eye-piece lens	a. Para 2-5. b. TM 11-5855-209-10. Note. Refer to TM 11-5855-209-10
2	Cover assembly cap	a. Check for proper fit b. Check for cracks c. Clean cap lens	a. Replace b. Replace c. TM 11-5855-209-10
3	Eyeshield	Check for tears, holes, or signs of deterioration.	Para 2-5.
4 ^b	Carrying Case	a. Examine for evidence of rotting or weakening of fabric by stretching or pulling b. Check for mildew, oil or grease	a. Replace b. Para 2-4.
5	Technical manual	Check for torn or missing pages and general condition	Replace

^aTo be performed daily if required.

^bTo be performed daily or weekly (as required) in tropical areas.

2-4. Maintenance of Carrying Case

a. *Mildew.* To prevent the formation of mildew, air the carrying case for several hours. Remove mildew by scrubbing with a dry, stiff brush. If water is necessary

to remove dirt, do not use it until all mildew has been removed.

b. *Oil and Grease.* Oil and grease can be removed from the carrying case by scrubbing with soap and warm water. Rinse

well in clear water and allow the carrying case to dry thoroughly before installing the night sight.

2-5. Removal and Replacement of Eyeshield

(fig. 3-3)

Replace the eyeshield when it is torn, cracked, or otherwise unserviceable.

a. *Removal.* Grasp the eyeshield (8) and turn it counterclockwise.

b. *Replacement.* Replace the eyeshield (8) on the retaining ring (5) and tighten clockwise.

NOTE

Remove four screws (6) to remove the retaining ring (5).

2-6. Installation and Removal of Boresight Mount (AN/PVS-3A Only)

(fig. 3-2)

a. *Installation.* Install the two screws (27) and tighten.

b. *Removal.* Unscrew the two screws (27) that attach the boresight mount to the main body (4).

2-7. Installation and Removal of Boresight Mount (AN/PVS-3 Only)

(fig. 3-3)

a. *Installation.* Install the two screws (11); install strap (12) around boresight (1) with relief toward screw (2). Place spring (14) in position against coupler ring (3); end thread screw (13) through strap (12), spring (14), boresight mount (15), and tighten.

b. *Removal.* Unscrew the two screws (11) from objective cell lens. Unscrew screw (13) from strap (12), spring (14), boresight mount (15), and remove strap (12) from around boresight. Retain spring (14) for reassembly.

2-8. Installation and Removal of M-14 Adapter Bracket

(fig. 2-1)

a. *Installation.*

(1) Position the adapter bracket on

the receiver assembly.

(2) Position the washer and screw and tighten down the screw by turning it clockwise.

b. *Removal.*

(1) Remove the screw and washer by turning the screw counterclockwise.

(2) Lift the adapter bracket from the receiver assembly.

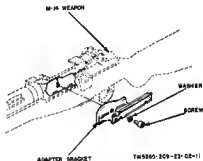


Figure 2-1. Adapter bracket M-14.

2-9. Installation and Removal of M-16 Adapter Bracket

(fig. 2-2)

a. *Installation.*

(1) Place the adapter bracket against the weapon handle and receiver and push inward and downward until the mounting ears are under and around the weapon handle.

(2) Position the adapter bracket first against the top of the receiver and all the way forward.

(3) Tighten the wingnut by turning it clockwise.

b. *Removal.*

(1) Loosen the wingnut by turning it counterclockwise.

(2) Grasp the adapter bracket and remove in an upward and outward direction until the mounting ears clear the weapon handle.

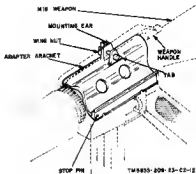


Figure 2-2. Adapter bracket M-16.

CHAPTER 3

DIRECT SUPPORT MAINTENANCE

Section I. General

3-1. Scope of Direct Support Maintenance

The maintenance duties assigned to direct support maintenance personnel are listed below, together with reference paragraphs covering the specific maintenance duty. These duties are performed in addition to those assigned to the operator (TM 11-5855-209-10) and organizational maintenance personnel (para 2-1).

- a. Troubleshooting (paras 3-6 and 3-9).
- b. Removal and replacement of components (paras 3-10 through 3-20).
- c. Testing (para 3-3).

3-2. Tools, Materials, and Test Equipment

a. *Tools.* The tools required for direct support maintenance are contained in Toolkit, Electronic Equipment TK-100/G (app. B).

b. Materials.

(1) Silicone compound, Dow Corning, DC-4 (MIL-G-8660, FSN) or equivalent, is required for lubricating O-rings and threads.

(2) Acetone (FED STD Q-A-51d) or equivalent is required for cleaning the parts of the boresight mount.

(3) Molybdenum disulfate (MIL-G-21164) is required for lubrication of the boresight mount.

c. *Test Equipment.* A multimeter (Multimeter TS-352B/U or equivalent) is required for direct support maintenance (app. B).

3-3. Operational Testing

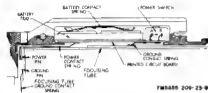
An operational test should be performed whenever the image intensifier tube, ob-

jective lens assembly, eyepiece assembly, main body components, or electrical components have been replaced or repaired. Refer to the operator's daily preventive maintenance checks and services chart in TM 11-5855-209-10.

3-4. Power Distribution
(fig. 3-1)

The path for current flow through the night sight is given below.

- a. From the image intensifier tube power pin to the power contact spring.
- b. From the power contact spring to the printed circuit board.
- c. From the printed circuit board to the negative side of the battery tray.
- d. From the positive side of the battery in the battery tray to the battery contact spring.
- e. From the battery contact spring to the negative side of the battery in the battery tray.
- f. From the positive side of the battery in the battery tray to the printed circuit board.
- g. From the printed circuit board to power switch terminal A.
- A. From power switch terminal B to the printed circuit board.
- i. From the printed circuit board to the ground contact spring.
- j. From the ground contact spring to the focusing tube.
- k. From the focusing tube ground contact spring to the ground pin.



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Figure 3-1. Night sight, location of electrical parts.

3-5. Continuity Check (fig. 3-1)

a. The wiring, printed circuit board, power switch, and electrical contact springs may be checked for electrical continuity with a multimeter as indicated below. Insure that a fresh battery tray is installed.

- (1) Place the power switch in the off position (toward the objective lens end of the night sight).
- (2) Remove the eyepiece assembly (para 3-15).
- (3) Remove the Image Intensifier tube (para 3-16).

- (4) Set the multimeter range selector to measure 3 volts direct current (dc).
- (5) Connect the multimeter negative lead to the ground contact spring.
- (6) Place the power switch in the on position (toward eyepiece assembly end of the night sight).
- (7) Place the multimeter positive test probe onto the power contact spring inside the focusing tube (13, fig. 3-2).
- (8) The multimeter should indicate between 2.6 and 2.8 volts dc.
- (9) Place the power switch in the off position (toward objective lens end of the night sight). The multimeter should indicate 0.

b. If the electrical continuity check in a above reveals an open circuit, the power switch must be removed (para 3-13) and the individual wires and power switch must be checked for continuity. If the continuity check of the power switch and wires is satisfactory, remove the focusing tube (para 3-17) and check for defective electrical contact springs.

Section II. TROUBLESHOOTING

3-6. Troubleshooting Checks

This section provides information for diagnosing and correcting unsatisfactory operation or failure of the night sight or any of its components. Each trouble symptom (para 3-7 and 3-8) contains a list of probable causes with the corrective measure. The mechanical troubles with corrective measures are contained in paragraph 3-9.

3-7. Image Blurred

Probable cause	Corrective measure
Defective image intensifier tube.	Replace image intensifier tube (para 3-16).
Damaged or defective objective lens assembly.	Replace objective lens assembly (para 3-14).
Damaged or defective eyepiece assembly.	Replace eyepiece assembly (para 3-15).

3-8. Weak or No Illumination of Image Intensifier Tube

Probable cause	Corrective measure
Defective image intensifier tube.	Replace image intensifier tube (para 3-16).
Defective power switch.	Replace power switch (para 3-13).
Defective focusing tube electrical contact spring.	Replace focusing tube (para 3-17).

3-9. Mechanical Troubles

Probable cause	Corrective measure
Range focus ring will not rotate.	Para 3-19.
Range focus ring, when turned counterclockwise, slips out of threads.	Para 3-12.
Bore-sight mount will not adjust properly in azimuth or elevation.	Para 3-20

Section III. REMOVAL AND REPLACEMENT

CAUTION

Be sure that the power switch is in the off position (toward the objective lens end of the night sight) before removing or replacing any components of the night sight.

3-10. (Deleted.)

3-11. Battery Retainer Cover
(fig. 3-2)

Replace the battery retainer cover when bent or when attaching thumbcrews are damaged or missing.

a. *Removal.* Unscrew and remove the battery cover hinge pin (7) from the battery housing.

CAUTION

Seal the battery cover hinge pin (7) with Loctite sealant or equivalent.

b. *Replacement.* Install a new battery retainer cover and insert a new battery cover hinge pin.

3-12. Focusing Tube Stop Screw
(fig. 3-2)a. *Removal.*

(1) Rotate the range focus ring (16) in a clockwise direction until the stop screw (8) is fully exposed.

(2) Unscrew the stop screw.

b. *Replacement.* Install a new stop screw and tighten only enough to seal O-ring against the main body.

CAUTION

Do not over torque screw.

NOTE

When removing the stop screw, make sure that the attached O-ring is also removed. When installing a new stop screw, make sure that the O-ring is attached.

3-13. Power Switch
(fig. 3-2)a. *Removal.*

(1) Open the battery retainer cover (9) and remove the battery tray (10).

(2) Use a small tip (pencil type) soldering iron and unsolder the wires connected to the power switch (11) terminals.

(3) Use a recessed socket wrench and remove the nut (6) from the power switch.

b. *Replacement.*

(1) Install the power switch (11) into the battery housing, thread the nut (6) to the power switch, and tighten.

(2) Solder the wires to the power switch (11) terminals.

(3) Remove all loose residue solder from the inside of the battery housing.

3-14. Objective Lens Assembly
(fig. 3-2)a. *Removal.*

(1) Unscrew six screws (5) from the main body (4).

(2) Remove the objective lens assembly (2) from the main body.

(3) Remove the O-ring (3) from the main body (4). Discard the O-ring.

b. *Inspection.*

(1) Inspect the optical surfaces for mers, cracks, or chips.

(2) Visually inspect the interior of the assembly for damage, condensation, mildew, or fungus.

c. *Repair.* Replace the objective lens assembly with a new assembly if inspection reveals any damage, interior condensation, mildew, or fungus.

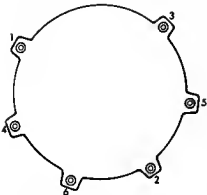
d. *Testing* The only method of testing for a defective objective lens assembly is by substitution of a known good objective lens assembly.

e. *Replacement.* Before replacing the objective lens assembly, insure that all optical surfaces and mating metal surfaces are clean and dry.

(1) Install a new O-ring (3) on the main body (4).

(2) Align the slot on the objective lens assembly with the slot on the main body.

(3) Install the six screws (5) and tighten sequentially as shown in figure 3-1.1.



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Figure 3-1.1. Screw Tightening Sequence.

3-15. Eyepiece Assembly

(fig. 3-2)

CAUTION

When removing the eyepiece assembly from the focusing tube, hold the eyepiece end up to prevent the image intensifier tube from sliding out.

a. Removal.

(1) Grasp the eyepiece assembly (18) firmly by the focus ring and turn counter-

clockwise to unscrew the eyepiece assembly from the focusing tube (13).

(2) Remove the O-ring (17) from the eyepiece assembly.

b. Inspection

(1) Inspect the exterior of the eyepiece assembly for mechanical damage.

(2) Inspect the threads for burrs or other damage.

(3) Inspect the optical surfaces for marks, cracks, or chips.

(4) Inspect the convolutions that mate with the image intensifier tube for damage.

(5) Visually inspect the interior of the assembly for damage, condensation, mildew, or fungus.

c. Repair:

(1) Remove burrs from the threads with a small file or emery cloth.

(2) Replace the eyepiece assembly with a new eyepiece assembly if inspection reveals any damage, interior condensation, mildew, or fungus.

d. *Testing.* The only method of testing a defective eyepiece assembly is by substitution of a known good eyepiece assembly.

e. *Replacement.* Before replacing the eyepiece assembly, insure that all optical surfaces are clean and dry. Clean the convolutions with lens tissue, wet with alcohol.

(1) Lubricate a new O-ring (17) with silicone compound and install on the eyepiece assembly (19).

(2) Thread the eyepiece assembly (18) into the focusing tube (13) in a clockwise direction until a snug fit is obtained. Make certain the focus ring is at its maximum clockwise stop position.

(3) Locate small hole on the eyepiece focus ring. While viewing through the hole, slowly turn the eyepiece focus ring counter-clockwise until the reference mark on the eyepiece body is in view through the hole on the focus ring. After removing all play between the eyepiece assembly and the focusing tube, back off the eyepiece assembly $\frac{1}{4}$ turn.

(4) While holding the eyepiece body and focus ring firmly aligned, position the diopter indicator (wire pointer located under the fo-

cus ring) to indicate; diopter on the eyepiece body.

3-16. Image Intensifier Tube (fig. 3-2)

WARNING

The image intensifier tube phosphor screens contain toxic material. If an image intensifier tube becomes broken, be extremely careful to prevent inhalation of the phosphor material. Do not allow it to come in contact with the mouth or open skin wounds.

a. *Removal.* Remove the eyepiece assembly (para 3-15).

CAUTION

The image intensifier tube may retain a static high-voltage charge. Do not touch metal components of the tube until discharged (3) below.

- (1) Remove the image intensifier tube (14) from the main body (4).
- (2) Remove battery tray (10).

NOTE

To remove the image intensifier tube, a gentle tap on the night sight while it is held at a slight angle (eyepiece end down) may be necessary. Keep the free band over the open end of the main body (4) to prevent the image intensifier tube from falling.

(3) The image intensifier tube will discharge itself in a normally lighted area (roomlight, etc). Discharge may be verified by shorting across metal components of the image intensifier tube.

(4) Remove the image tube washer (15) from the image intensifier tube.

b. *Testing.* The only method of testing for a defective image intensifier tube is by substitution of a known good image intensifier tube.

c. *Replacement.* Before replacing the image intensifier tube, insure that the glass faces, ground pin, and power pin are clean.

- (1) Note the position of the power pin

and ground pin on the image intensifier tube (14).

(2) Look at the inside end of the focusing tube (13) and note the position of the power and ground contact springs.

(3) Visually align the image tube contact pins with the focusing tube contact springs. Carefully insert the image intensifier tube into the focusing tube.

(4) Rotate the image intensifier tube slightly in either direction to locate the image intensifier tube power and ground pins with the mating contact springs of the focusing tube.

(5) Install image tube washer (15) into the focusing tube.

(6) Thread the eyepiece assembly (18) into the focusing tube (13) in a clockwise direction.

- (7) Replace battery tray (10).

3-17. Focusing Tube (fig. 3-2)

a. *Removal.*

(1) Remove the image intensifier tube (14) (para 3-16).

(2) Remove the range focus ring set screws (24).

(3) Remove the focusing tube stop screw (8) (para 3-12).

(4) Rotate the range focus ring clockwise to disassemble the focusing tube (13) from the main body (4). Pull focusing tube (13) gently from the main body.

CAUTION

Do not rotate focusing tube in main body when stop screw is removed. Power contact spring (fig. 3-1) may snag in main body (4). Forcing or rapidly extracting focus tube from main body may bend or break off power contact spring.

(5) Remove the range focus ring (16) from the main body (4).

b. *Inspection.*

(1) Inspect the threads for burrs or damaged threads.

(2) Inspect the power and ground contact springs for damage or corrosion.

c. Repair.

(1) Remove burrs from the threads with a small file or emery cloth. Clean the contact springs.

(2) Replace the focusing tube when inspection reveals damage, which renders the focusing tube unserviceable.

d. Replacement. Before replacing the focusing tube (13) and range focus ring (16), make sure that all threads are clean.

(1) Lubricate the threads on the main body (4), focusing tube (13), and range focus ring (16) with silicone compound.

(2) Place the range focus ring (16) on the main body (4). Do not start threads.

NOTE

The zero diopter mark on the focusing tube must be aligned with the focusing tube stop screw hole when performing (3) and (4) below.

(3) Gently insert the focusing tube (13) through range focus ring (16) and into the main body (4).

(4) Turn the range focus ring (16) clockwise until the range focus ring reaches the stop position.

(5) Install the focusing tube stop screw (8) (para 3-12).

3-18. Main Body

(fig. 3-2)

a. Removal.

(1) Remove the objective lens assembly (para 3-14).

(2) Remove the focusing tube (para 3-17).

b. Repair.

(1) Remove burrs from the threads with small file or emery cloth.

(2) Replace the main body with a new main body if inspection reveals any dents, cracks, or other damage which renders the main body unserviceable.

c. Replacement.

(1) Install the objective lens assembly (para 3-14).

(2) Install the focusing tube (para 3-17d).

3-19. Range Focus Ring

Remove, inspect, repair, and replace range focus ring in accordance with paragraph 3-17.

3-20. Boresight Mount, AN/PVS-3 and AN/PVS-3A

(figs. 3-2, 3-3, and 3-4)

a. Removal, AN/PVS-3 (fig. 3-3). Remove screw (13) from boresight mount (15) and remove strap (12) and spring (14). Retain these components for reassembly.

b. Removal, AN/PVS-3A (fig. 3-2). Loosen the two captive screws (27) and the boresight mount (25) will separate from night sight.

c. Disassembly (fig. 3-4).

(1) Place a screwdriver in the slot in pin (1) and relax the tension on pin (2).

(2) Remove pin (2), release and remove pin (1).

(3) Remove retaining ring (3) and lift the crossbar (4) from the boresight frame (5).

NOTE

Crossbar on the boresight mount for AN/PVS-3 is shown in figure 3-3. The crossbar illustrated in figures 3-2 and 3-4 is the one used with the AN/PVS-3A. Except for this difference, the boresight mounts are identical.

(4) Remove the spiral spring (6) from the crossbar (4) and remove captive screws (7) and (8). The flat spring (9) may be pulled out after removal of screw (8).

(5) Remove self-locking screw (10) and unscrew pin (11) from the shaft of knob (12).

(6) Remove knob (12), ball bearings (13 and 14), and compression spring (15) from the boresight frame (5).

(7) Remove retaining ring (16) and thrust washer (17) from the shaft of knob (18).

(8) Remove knob (18) from boresight frame (5) and post (19) by turning knob counterclockwise. The post (19), compression spring (20), and ball bearing (25) are now removable.

(9) Remove pin (21) from knob (22) and locking screw (23).

(10) Remove locking screw (23), knob (22), and washer (24) from boresight frame (5) by turning counterclockwise.

d. Cleaning and Lubrication.

(1) *Cleaning.* Clean both inside and outside surfaces, threads, grooves, and flanges of the boresight frame (5) and crossbar (4). Use a fine brass wire brush to remove dirt imbedded in grooves and flanges. Clean wipe components with a clean, lint free cloth saturated in acetone. Make certain that all parts are free of oil, grease, and other foreign matter.

(2) *Lubrication.* At assembly, lubricate the following items with molybdenum disulfide.

- (a) Knob (12) shaft.
- (b) Knob (18) shaft.
- (c) Compression spring (15).
- (d) Compression spring (20).

e. Inspection.

(1) Visually inspect all mechanical parts to be certain that they are free of oil, dust, or other foreign matter.

(2) Inspect all threads on metal parts for burrs or damaged threads.

(3) Inspect all metal parts for cracks or dents.

f. Repair. Remove all burrs from

threaded parts with a small file or emery cloth. Unrepairable items must be replaced.

g. Assembly.

(1) Place the knob (22) end washer (24) on the locking screw (23). Align the holes in the knob with the hole in the locking screw and insert pin (21).

(2) Insert the locking screw (23) into the boresight frame (5) and tighten securely.

(3) Insert post (19), compression spring (20), and ball bearing (25) into the boresight frame (5).

(4) Insert knob (18) through the boresight frame (5) end post (19) and install thrust washer (17) end retaining ring (16) to the shaft of the knob.

(5) Install compression spring (15), ball bearings (13 and 14), and knob (12) into the boresight frame (5).

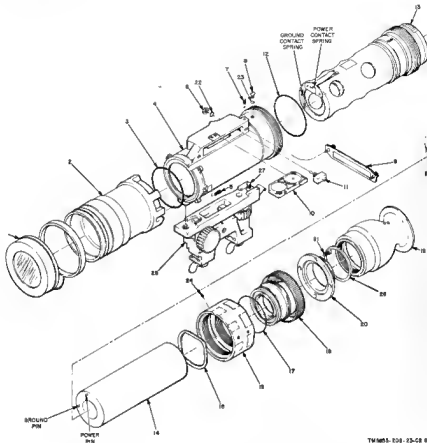
(6) Install pin (11) onto the shaft of knob (12) and install self-locking screw (10) and tighten the screw securely.

(7) Install the flat spring (9), captive screws (7 and 8), and spiral spring (6) into the crossbar (4).

(8) Position the crossbar (4) onto the boresight frame (5). Align the hole on the crossbar to fit over post (19) and install retaining ring (3).

(9) Install pin (1) into the boresight frame (5), aligning the groove in the pin with the inside end of the spiral spring (6).

(10) Using a torque wrench with a screwdriver attachment, insert the screwdriver tip into pin (1) and tighten to a torque of 90 (\pm 10) inch-pound. Align the pins slot with the holes in the boresight frame (5) and insert pin (2).

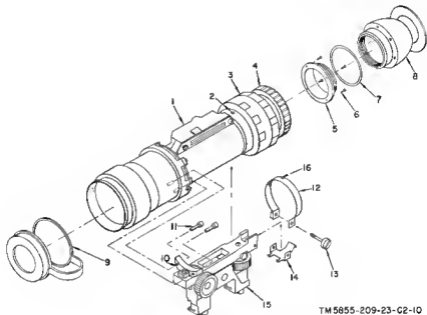


- 1 Cover assembly, cap 1A1MP1
- 2 Objective lens assembly 1A1
- 3 O-ring 1MP2
- 4 Main body 1A2
- 5 Screw 1MP3 8
- 6 Nut A2A148
- 7 Hinge pin 1A2A1H4
- 8 Focusing tube stop screw 1A2H1
- 9 Battery retainer cover 1A241A2
- 10 Battery tray A1E1
- 11 Power switch A2A1S1
- 12 O-ring 1A2MP2
- 13 Focusing tube 1A2A2
- 14 Image intensifier tube 1A2A2

- 15 Image tube washer 1MP4
- 16 Range focus ring 1A2MP1
- 17 O-ring 1MP1
- 18 Eyepiece assembly 1A3
- 19 Eyeshield 1A3A1A1
- 20 Retaining ring 1A3A1MP1
- 21 Screw 1A3H3
- 22 Washer 1A2A1H7
- 23 O-ring A2A1H7
- 24 Setscrew 1A242 5
- 25 Bore-sight mount 1A4
- 26 Eyepiece spacer 1A3A1MP2
- 27 Screw, captive 1A4H6

TM 11-5855-209-23-02 8

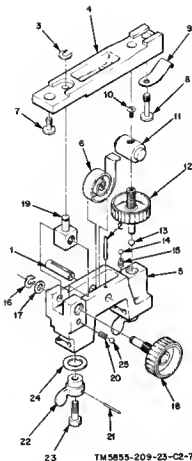
Figure 3-2 Night sight, exploded view (AN/PVS 3A)



TM 5655-209-23-C2-10

- 1 Main body 1A2
- 2 Focusing tube stop screw 1A2H1
- 3 Focusing tube 1A2A2
- 4 Range focus ring 1A2MP1
- 5 Retaining ring 1A3A1MP1
- 6 Screw 1A3H3
- 7 Eyepiece spacer 1A3A1MP2
- 8 Eyeshield 1A3A1A1
- 9 Cover assembly cap 1A1MP1
- 10 Adapter bracket
- 11 Screw 1MP3-8
- 12 Strap
- 13 Screw
- 14 Spring, flat MP4
- 15 Bore sight mount 1A4

Figure 3-3 Night sight, exploded view (AN/PVS-3).



- | | |
|----------------------------|------------------------------|
| 1 Pin (MP1) | 14 Ball bearing (MP9) |
| 2 Pin (H1) | 15 Compression spring (MP10) |
| 3 Retaining ring (H2) | 16 Retaining ring (H6) |
| 4 Crossbar (MP3) | 17 Thrust washer (H7) |
| 5 Bore-sight frame (MP7) | 18 Knob (MP11) |
| 6 Spiral spring (MP2) | 19 Post (MP12) |
| 7 Captive screw (H3) | 20 Compression spring (MP14) |
| 8 Captive screw (H4) | 21 Pin (H5) |
| 9 Flat spring (MP4) | 22 Knob (MP15) |
| 10 Self locking screw (H5) | 23 Locking screw (H9) |
| 11 Pin (MP5) | 24 Washer (MP16) |
| 12 Knob (MP6) | 25 Ball bearing (MP13) |

Figure 3-4 Bore-sight mount, exploded view

APPENDIX A REFERENCES

The following publications contain information applicable to the organizational and DS maintenance of the AN/PVS-3 and AN/PVS-3A.

DA Pam 310-4

Index of Technical Manuals, Technical Bulletins, Supply Manuals (types 7, 8, and 9), Supply Bulletins, and Lubrication Orders.

DA PAM 310-7

Index of Modification Work Orders.

TB 746-10

Field Instructions for Painting and Preserving Electronics Command Equipment.

TM 11-5855-209-10

Operator's Manual, Night Vision Sight, Miniaturized AN/PVS-3 and AN/PVS-3A.

TM 11-6625-366-15

Operator's, Organizational, DS, GS, and Depot Maintenance Manual: Multimeter TS-352B/U.

TM 38-750

The Army Maintenance Management System (TAMMS).

APPENDIX B

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

B-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for the AN/PVS-3. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used as an aid in planning maintenance operations.

B-2. Maintenance Functions

Maintenance functions will be limited to and defined as follows:

a. *INSPECT*. To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.

b. *TEST*. To verify serviceability and to detect incipient electrical or mechanical failure by use of special equipment such as gages, meters, etc. This is accomplished with external test equipment and does not include operation of the equipment and operator type tests using internal meters or indicating devices.

c. *SERVICE*. To clean, to preserve, to charge, and to add fuel, lubricants, cooling agents, and air. If it is desired that elements, such as painting and lubricating, be defined separately, they may be so listed.

d. *ADJUST*. To rectify to the extent necessary to bring into proper operating range.

e. *ALIGN*. To adjust two or more components or assemblies of an electrical or mechanical system so that their functions are properly synchronized. This does not include setting the frequency control knob of radio receivers or transmitters to the desired frequency.

f. *CALIBRATE*. To determine the cor-

rections to be made in the readings of instruments or test equipment used in precise measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.

g. *INSTALL*. To set up for use in an operational environment such as an encampment, site, or vehicle.

h. *REPLACE*. To replace unserviceable items with serviceable like items.

i. *REPAIR*. To restore an item to serviceable condition through correction of a specific failure or unserviceable condition. This function includes, but is not limited to welding, grinding, riveting, straightening, and replacement of parts other than by the trial and error replacement of running spare type items such as fuses, lamps, or electron tubes.

j. *OVERHAUL*. Normally, the highest degree of maintenance performed by the Army in order to minimize time work in process is consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by maintenance standards in technical publications for each item of equipment. Overhaul normally does not return an item to like new, zero mileage, or zero hour condition.

k. *REBUILD*. The highest degree of material maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance category. Rebuild reduces to zero the hours or miles the equipment, or component there-

of, has been in use.

1. **SYMBOLS.** The uppercase letter placed in the appropriate column indicates the lowest level at which that particular maintenance function is to be performed.

B-3. Explanation of Format

a. **Column 1, Group Number.** Column 1 lists group numbers, the purpose of which is to identify components, assemblies, sub-assemblies and modules with the next higher assembly.

b. **Column 2, Functional Group.** Column 2 lists the noun names of components, assemblies, sub-assemblies and modules on which maintenance is authorized.

c. **Column 3, Maintenance Functions.** Column 3 lists the maintenance category at which performance of the specific maintenance function is authorized. Authorization to perform a function at any category also includes authorization to perform that function at higher categories. The codes used represent the various maintenance categories as follows:

Code	Maintenance category
C.....	Operator/crew
O.....	Organizational maintenance
F.....	Direct support maintenance
H.....	General support maintenance
D.....	Depot maintenance

d. **Column 4, Tools and Test Equipment.** Column 4 specifies, by code, those tools and test equipment required to perform the designated function. The numbers appearing in this column refer to specific tools and test equipment which are identified in table I.

e. **Column 5, Remarks.** Self-explanatory.

B-4. Explanation of Format of Table I, Tool and Test Equipment Requirements

The columns in table I are as follows:

a. **Tools and Equipment.** The numbers in this column coincide with the numbers used in the tools and equipment column of the maintenance allocation chart. The numbers indicate the applicable tool for the maintenance function.

b. **Maintenance Category.** The codes in this column indicate the maintenance category normally allocated the facility.

c. **Nomenclature.** This column lists tools, test, and maintenance equipment required to perform the maintenance functions.

d. **Federal Stock Number.** This column lists the Federal stock number of the specific tool or test equipment.

e. **Tool Number.** Not used.

TOOLS AND EQUIPMENT	MAINTENANCE CATEGORY	NOMENCLATURE	FEDERAL STOCK NUMBER	TOOL NUMBER
1	F, H, D	AN/PMS-3 (continued) MULTIMETER TM-3528/U	6625-262-5023	
2	F, H, D	TOOL KIT ELECTRONIC EQUIPMENT TM-200/G	5180-605-0079	

SECTION II. MAINTENANCE ALLOCATION CHART

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS										TOOLS AND EQUIPMENT	REMARKS	
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL			REBUILD
1	NIGHT VISION SIGHT, MINIATURIZED AN/PVS-3	C	F	O	O				F		D	D	1,2	Depot facilities
1A	SOUSING ASSEMBLY	C						F	F				2	
1B	OBJECTIVE LENS ASSEMBLY	F	D					F	F	D	D		2	Depot facilities
1C	EYEPiece LENS ASSEMBLY	F	D					F	F	D	D		2	Depot facilities
1D	BATTERY	C						O	O					
1E	IMAGE INTENSIFIER ASSEMBLY	F	D					F	F	D	D		2	Depot facilities
1F	EXTERNAL HARDWARE AND SWITCHES	O	F					F	F				1,2	
1G	EYE SHIELD	O						O						
1H	CARRYING CASE OR BAG	C						C	O					
1I	NIGHTSIGHT ASSEMBLY	C		C	C			O	O	F			2	
1J	WEAPON MOUNT ASSEMBLY	C		C				O	O	F			2	

APPENDIX C

ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS

Section I. INTRODUCTION

C-1. Scope

This appendix lists repair parts required for the performance of organizational and direct support of the AN/PVS-3 and AN/PVS-3A.

NOTE

No special tools and test equipment are required.

C-2. General

This Repair Parts List is divided into the following sections:

a. *Repair Parts for Organizational Maintenance — Section II.* A list of repair parts authorized for the performance of maintenance at the organizational level.

b. *Repair Parts for Direct Support, General Support, and Depot Maintenance — Section III.* A list of repair parts authorized for the performance of maintenance at direct support.

c. *Index — Federal Stock Number Cross Reference to Figure and Item Number or Reference Designation — Section IV.* A list of Federal stock numbers in ascending numerical sequence, followed by a list of reference numbers in ascending alphanumeric sequence, cross-referenced to the illustration figure number or reference designation.

d. *Index — Reference Designation Cross-Reference to Page Number — Section V.* A list of reference designations cross-referenced to page numbers.

C-3. Explanation of Columns

The following provides an explanation of columns in the tabular lists:

a. *Source, Maintenance, and Recoverability Codes (SMR).*

(1) Source code indicates the selection status and source for the listed item. Source codes are:

- | | <i>Explanation</i> |
|-----|--|
| P | Repair parts which are stocked in or supplied from GSA/DSA or Army supply system and authorized for use at indicated maintenance categories |
| P2 | Repair parts which are procured and stocked for insurance purposes because the combat or military essentiality of the end item dictates that a minimum quantity be available in the supply system |
| P9 | Assigned to items which are NSA design controlled unique repair parts, special tools, test, measuring and diagnostic equipment, which are stocked and supplied by the Army COMSEC logistic system, and which are not subject to the provisions of AR 380-41 |
| F10 | Assigned to items which are NSA design controlled special tools, test, measuring and diagnostic equipment for COMSEC support, which are accountable under the provisions of AR 380-41, and which are stocked and supplied by the Army COMSEC logistic system |
| M | Repair parts which are not procured or stocked, but are to be manufactured in indicated maintenance levels |
| A | Assemblies which are not procured or stocked as such, but are made up of two or more units. Each component units carry individual stock numbers and descriptions, are procured and stocked separately and can be assembled to form the required assembly at indicated maintenance categories |
| X | Parts and assemblies which are not procured or stocked and the mortality of which normally is below that of the applicable end item or component. The failure of such part or assembly should result in retirement of the end item from the supply system |
| X1 | Repair parts which are not procured or stocked. The requirement for such items will be filled by use of the next higher assembly or component |
| X2 | Repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain same through cannibalization. Where such repair parts are not obtainable through cannibalization, requirements will be requisitioned, with accompanying justification, through normal supply channels. |
| G | Major assemblies that are procured with FEMA funds for initial issue only as exchange assemblies at DSU and GSU level. These assemblies will not be stocked above DS and GS level or returned to depot supply level. |

(2) Maintenance code indicates the lowest category of maintenance authorized to install the listed item. The maintenance level codes are:

Code	Explanation
C	Operator/Crew
O	Organizational Maintenance
F	Direct Support Maintenance
H	General Support Maintenance
D	Depot Maintenance

(3) Recoverability code indicates whether non-serviceable items should be returned for recovery or salvage. Items not coded are expendable. Recoverability codes are:

Code	Explanation
R	Repair parts and assemblies that are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis
S	Repair parts and assemblies which are economically repairable at DSU and GSU activities and which normally are furnished by supply on an exchange basis. When items are determined by GSU to be uneconomically repairable, they will be evacuated to a depot for evaluation and analysis before final disposition
T	High dollar value recoverable repair parts which are subject to special handling and are issued on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities
U	Repair parts specifically selected for salvage by reclamation units because of precious metal content, critical materials, or high dollar value reusable casings or castings

b. *Federal Stock Number.* Indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. *Description.* Indicates the Federal item name and any additional description of the item required. The index number has been included as part of the description to aid in the location of "same as" items. A part number or other reference number is followed by the applicable five-digit Federal supply code for manufacturers in parentheses.

d. *Unit of Measure (U/M).* A two-character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr, etc.

e. *Quantity Incorporated in Unit.* Indicates the quantity of the item used in the AN/PVS-S and AN/PVS-SA. A "V" appearing in this column in lieu of a quantity indicates that a definite quantity cannot be indicated. Subsequent appearances of

the same item in the same assembly are indicated by the letters "REF."

f. *Allowances (15-Day Organizational Maintenance, 30-Day DS Maintenance)* Items authorized for requisition as required are identified by an asterisk in the allowance column.

g. Illustrations.

(1) *Figure number.* Indicates the figure number of the illustration in which the item is shown.

(2) *Item number or reference designation.* Indicates the reference designation or item number used to identify the item in the illustration.

C-4. Special Information

Identification of the usable on codes of this publication are:

Code	Used on
1	AN/PVS-3
2	AN/PVS-3A

C-5. Location of Repair Parts

a. This appendix contains two cross-reference indexes (sec. IV and sec. V) to be used to locate a repair part when either the Federal stock number, reference number (manufacturer's part number) or reference designation is known. The first column in each index is prepared in numerical or alphanumeric sequence in ascending order. Where a Federal stock number is not listed, refer to the reference number (manufacturer's part number) immediately following the Federal stock number.

b. When the Federal stock number or reference number is known, follow the procedures given in (1) and (2) below.

(1) Refer to the index of Federal stock numbers (sec. IV) and locate the Federal stock number or reference number. The Federal stock number or reference number is cross-referenced to the applicable figures and item number or reference designation.

(2) When the reference designation is determined, refer to the reference designation index (sec. V). The reference designations are listed in numeric-alpha ascending order and are cross-referenced to the page number on which they appear in the repair parts list (sec. II and III). Refer to the page number noted in the index and locate the reference designation in the repair parts list (col. 7a, Repair Parts for Organizational Maintenance or col. 10b, Repair Parts for Direct Support,

General Support, and Depot Maintenance). If the description column indicates that it is a "SAME AS" item, locate the first appearance of the item by the index number referenced.

c. When the reference designation is known, follow the procedures given in b(2) above.

d. When neither the Federal stock number, reference number, nor reference designation is known, identify the part in the illustration and follow directions given in c above or scrutinize

column 3 of the repair parts list (sec. II and sec. III).

C-6. Federal Supply Code for Manufacturers.

Code

80063
 81345
 81346
 96906

Manufacturer

Army Electronics Command
 Federal Specifications
 Military Specifications
 Military Standards

(Next printed page is C-5.)

SECTION III REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

(1) NATO CODE	(2) FEDERAL ITEM NUMBER	(3) NATO DESCRIPTION	(4) QUANTITY PER UNIT	(5) UNIT OF MEASURE	(6) NATO CLASSIFICATION	(7) NATO CLASSIFICATION			(8) NATO CLASSIFICATION	(9) NATO CLASSIFICATION	(10) NATO CLASSIFICATION	(11) NATO CLASSIFICATION	(12) NATO CLASSIFICATION
						(7A) CLASSIFICATION	(7B) CLASSIFICATION	(7C) CLASSIFICATION					
2-2	3203-412-1788	A072 WRENCH; M800 AX 2405	1,2	EA	800	A	A	A					LA302
2-2	3203-412-1788	A072 WRENCH; M800 AX 4811	1,2	EA	800	A	A	A					LA700
2-2	3203-412-1788	A072 WRENCH; M800 AX 4822	1,2	EA	800	A	A	A					LA306
2-2	4050-105-7465	A079 2300000 CMP; M1200000 (00002)	1,2	CF	W	A	A	A					LA002
2-2-1	5035-400-1020	9000 WRENCH ADPT; M0412000-2 (00002)	1,2	EA	2	1	1	A					2-2 10
2-0	5031-123-1123	1202 WRENCH ADPT; M04121121 (00002)	1,2	EA	2	1	1	A					2-2 10
2-2	4022-123-4111	1212 ADAPTER PLATE WRENCH COMB; M04121212 (00002)	1,2	EA	2	1	A	A					2-2 10
2-2	3203-160-1122	A102 WRENCH ADPT; M04121122 (00002)	1,2	EA	1	A	A	A					2-2 10
2-2	5035-123-4042	A101 WRENCH WRENCH; M04121121 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2-1	5035-412-1230	1230 WRENCH ADAPTER, WRENCH; M04121230-2 (00002)	1	EA	2	A	A	A					2-2 10
2-2-1	5035-143-0444	A120 WRENCH ADAPTER, WRENCH; M04121430-2 (00002)	1	EA	2	A	A	A					2-2 10
2-2	5032-400-1234	A121 WRENCH ADPT WRENCH; M04121234 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2-1		A121 WRENCH; M04121234-2 (00002)	1,2	EA	2								LA000
2-2	3203-083-0003	1222 WRENCH LOCKING; M04120003 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	3203-083-0003	1222 WRENCH LOCKING; SAME AS 1218	1,2	EA	000	A	A	A					LA000
2-2	3203-083-1220	A120 WRENCH LOCKING; M04120003 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	3203-083-1220	A121 WRENCH LOCKING; M000 AX 0120	1,2	EA	000	A	A	A					LA000
2-2	5032-434-1220	A120 WRENCH LOCKING; M04121220 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	5030-412-1422	A121 WRENCH, SPECIAL, POSITIONING; M04121422 (00002)	1,2	EA	2	1	1	1					2-2 10
2-2	3203-442-1122	A121 WRENCH, CAPTIVE WRENCH; M04121121-2 (00002)	1,2	EA	1	1	1	1					2-2 10
2-2	3203-442-1422	A121 WRENCH, CAPTIVE WRENCH; M04121111-2 (00002)	1	EA	1	A	A	A					2-2 10
2-2	5032-400-0122	A121 WRENCH, CAPTIVE WRENCH; M04120122 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	5032-400-0124	A101 WRENCH, CAPTIVE WRENCH; M04121124 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	3203-083-0001	A120 WRENCH; M04120000 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	5030-083-1012	A120 WRENCH; SAME AS 0120	1,2	EA	000	A	A	A					LA002
2-2	5035-101-4022	1220 WRENCH WRENCH; M04121012 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	3203-104-1222	1221 WRENCH, WRENCH; SAME AS 0120	1,2	EA	000	A	A	A					LA002
2-2	5032-400-0144	1220 WRENCH, WRENCH; M04121012 (00002)	1,2	EA	2	A	A	A					2-2 10
2-2	5035-400-0121	1221 WRENCH, WRENCH; M04121012 (00002)	1,2	EA	2	A	A	A					2-2 10

SECTION 111 REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(CONTINUED)

F1) NSC CAGE	F2) FEDERAL TOUCH MARK	F3) DESCRIPTION	F4) UNIT OF MEAS	F5) QTY IN UNIT	F6) 30-DAY (25-44) RPT ALLOWANCE			F7) 30-DAY (45-64) RPT ALLOWANCE			F8) APPROX WEIGHT (LBS)	F9) APPROX LENGTH (IN)	F10) APPROX DIAMETER (IN)	F11) CLASSIFICATION			
					F12) C	F13) M	F14) D	F15) C	F16) M	F17) D				F18) C	F19) M	F20) C	F21) M
7-2	3140-423-2732	A134 101 2ND HELICAL CYR44 SC4421134 (300003)	1,2	EA	3	*	*	*					2-4	13			
7-2	3110-423-2071	A135 SPRING HELICAL CYR44 SC44 40 A134	1,1	EA	800	*	*	*						14002			
7-0	3230-421-0010	A136 VALVE THROTTLE, MOUNTING BRACKET SC4421211 (300003)	2,1	EA	1	*	*	*					3-4	21			
7-0	3225-421-0421	A137 1 2ND STW1 SC4421212-18 (300003)	2,1	EA	2	*	*	*					3-4	22			
7-1	3265-422-0022	1 2ND STW0 SC4421212-15 (300003)	2,1	EA	2	*	*	*					5-4	3			
7-2	3115-042-1666	A139 1 2ND STW1 SC4421214 (300003)	2,1	EA	3	*	*	*					5-4	23			
7-0	3115-042-1666	A141 2ND SPRING SC44 40 A134	2,2	EA	800	*	*	*						14002			
7-0	3225-201-7922	A143 2ND SPRING SC4421214 (300003)	2,2	EA	2	*	*	*					3-4	24			
7-2	3210-211-1222	A145 2ND SPRING SC4421214 (300003)	2,2	EA	3	*	*	*					3-4	24			
7-2	3210-211-7922	A145 2ND SPRING SC4421214 (300003)	2,2	EA	3	*	*	*					3-4	25			
7-2	3170221-2072	A117 2ND SPRING SC44 40 A134	2,2	EA	800	*	*	*						14002			
7-0	3100	A145 SCREW, SELF-LACING, THROTTLE SC4421215 (300003)	2,2	EA	2	*	*	*					3-4	26			
7-0	3210426-2290	3266 COVER, MOUNTING BRACKET SC4421216 (302003)	2,2	EA	0	*	*	*						14002			
7-0	3211-422-2221	A117 2ND SPRING SC4421216-2 (300003)	2,2	EA	2	*	*	*					3-4	27			
7-2		A126 COVER, MOUNTING BRACKET SC4421217-1 (300003)	2	EA	3	*	*	*					3-4	28			
7-0		A126 2ND SPRING SC4421216 (300003)	2	EA	2	*	*	*					3-4	29			
7-2	3260-421-5122	A248 SPRING PLATE SC4421218 (300003)	2	EA	3	*	*	*					3-4	30			
7-0		A126 2ND SPRING SC4421216 (300003)	2	EA	2	*	*	*					3-4	31			
7-2		A148 HOUSING, CAPTIVE, MOUNTING BRACKET SC4421219 (300003)	2	EA	2	*	*	*					3-4	32			
7-0		A136 SPRING PLATE SC4421217 (300003)	2	EA	2	*	*	*					3-4	33			
7-0	3130-313-0444	A141 CAP, UPPER ARM SC4421219 (300003)	2,2	EA	3	*	*	*					3-4	34			
7-0	3230-225-2266	A137 1 2ND SPRING SC4421219-1 (300003)	2,2	EA	2	*	*	*					3-4	35			
7-2	3230-225-2266	A137 1 2ND SPRING SC4421219-1 (300003)	2,2	EA	3	*	*	*					3-4	36			
7-0	3261-442-1444	A122 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	2,2	EA	0	*	*	*					3-4	37			
7-0	3261-442-2442	A122 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	2,2	EA	800	*	*	*						14002			
7-2	3261-442-2444	A126 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	2,2	EA	800	*	*	*						14002			
7-2	3261-442-0006	A137 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	1,2	EA	800	*	*	*						14002			
7-0		A126 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	2,2	EA	2	*	*	*					3-4	38			
7-4		A122 SCREW, SELF-LACING, SOCKET HEAD SC4421220-1 (300003)	2,2	EA	800	*	*	*						14002			

SECTION 110 REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE (CONTINUED)

110 NSI OR CAGE	21 FEDERAL STOCK NUMBER	DESCRIPTION	UNLESS OTHERWISE SPECIFIED	110 OR NSI OR CAGE	110 OR NSI OR CAGE	30-DAY 22 MONTH ALLOWANCE				30-DAY 22 MONTH ALLOWANCE				110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE		
						110 OR NSI OR CAGE		110 OR NSI OR CAGE		110 OR NSI OR CAGE		110 OR NSI OR CAGE						110 OR NSI OR CAGE	110 OR NSI OR CAGE	
						110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE	110 OR NSI OR CAGE							110 OR NSI OR CAGE
P-1	1230-123-0000	A144 12301000 OHV- SAGE AS A179	1,2	DN	1	*														1230
P-1-1	1230-123-0110	A144 12301000 OHV- SAGE AS A179	1,2	DN	1	*														1230
E1-1		A143 12301000 OHV- SAGE AS A179	1,2	DN	1	*														1230
E1-2		A143 12301000 OHV- SAGE AS A179	1,2	DN	1	*														1230
E1-3		A143 12301000 OHV- SAGE AS A179	1,2	DN	1	*														1230
P-1	1210-121-3010	A143 WARM, SAGE SAGE AS A179	1,2	DN	1	*														1210
P-1	1201	A143 WARM, SAGE SAGE AS A179	1,2	DN	1	*														1201
P-1-1	1210-121-4010	A144 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
E1-1		A144 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1241	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-3010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-4010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-5010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-6010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-7010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-8010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-9010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1110	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1210	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1310	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1410	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1510	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1610	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1710	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1810	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-1910	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2110	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2210	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2310	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2410	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2510	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2610	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2710	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2810	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-2910	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210
P-1	1210-121-3010	A143 12101000 OHV- SAGE AS A179	1,2	DN	1	*														1210

SECTION 000 REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPUT MAINTENANCE

(CONTINUED)

C1 200 GPO	C2 FISCAL YEAR	C3 DESCRIPTION	C4 QUANTITY OR WEIGHT	C5 UNIT MEAS.	C6 BUY TYPE OR MFR	C7 30-DAY DEL. MANT ALLOWANCE			C8 90-DAY DEL. MANT ALLOWANCE			C9 BUYING OFFICE	C10 BUYING OFFICE GROUP	C11 CLASSIFICATION			
						D1 1-30	D2 31-30	D3 31-30	D4 1-90	D5 31-90	D6 31-90			A1 100 NO.	A2 100 NO.		
																B1 100 NO.	B2 100 NO.
2-2		A099 HEADLAM AND TAPE, RECTANG. K14420070 (81349)	2	EA	2												
22-8	1100-102-1000	A099 EXTER. K10000000 (10000)	2	EA	2												4913
8-7		A191 APRESURE K1431000 (11340)	2	EA	2	*	*	*									4921
0-0-0	1000-010-0490	A102 BRAC. DISTRIBUTION UNIT, 10000 K0040000 (00040)	1,0	EA	1	*	*	*							0-3	24	
0-0	1310-000-0051	A193 CAP, PROTECTIVE K0011740 (00000)	2	EA	2	*	*	*									4902
0-8	1310-000-1000	A194 CAP, PROTECTIVE K0000000 (00000)	2	EA	000	*	*	*									4902
0-3		A204 COVER, RECEPTION AND STORAGE K0000000 (00000)	2	EA	2												4902
0-3		A194 COVER, RECEPTION AND STORAGE K0000000 (00000)	2	EA	000												4906
1-0	0010-007-0740	A210 FARM LAMP K0000000000 (01000)	1,0	EA	2	*	*	*									492
1-0	1210-000-1110	A210 CAP, WICKER OR BUSH K0000000000 (01000)	1,0	EA	1	*	*	*									492
0-3	1210-010-0000	A210 WAREH. RECEPTION TOWER K0000000 (00000)	1,0	EA	1	*	*	*							0-1	10	

**SECTION 27 INDEX-FEDERAL STOCK NUMBER CROSS REFERENCE
TO FIGURE AND ITEM NUMBER OR REFERENCE DESIGNATION**

FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION	FEDERAL STOCK NUMBER	FIGURE NUMBER	ITEM NUMBER OR REF. DESIGNATION
5110-454-7055		1A40F01	5055-245-0445	3-1	20
5110-151-5055	3-4	23	5055-245-0445	3-1	55
5550-584-5050	3-6	54	5055-409-0920	3-1	50
5550-580-5505		995	5055-409-0140	3-4	5A-140
5505-085-5080		510	5055-409-0145	3-4	1A40F5
5505-085-5087		1A40Z	5055-409-0150	3-4	5
5905-081-5085	3-4	25	5055-409-0155	3-4	11
5905-120-1050	3-5	1A20Z	5055-409-0155	3-4	50
5905-120-1050		1A20Z	5055-454-5340	3-2	4
5905-120-1050		1A20A	5055-454-5340	3-1	53
5905-120-1050		1A205	5055-455-5550	3-2	53
5905-120-1050		1	5055-455-5555	3-4	0
5905-446-4050	3-4	0	5055-051-0554	3-5	13
5905-446-4050		1A20	5930-455-5557	3-5	11
5905-446-4050		50P5	6555-495-5555	3-5	0
5905-446-4050		10P4	0555-076-7055	3-5	0
5905-446-4050		3	0640-595-6745		50P3
5905-446-4050		1A20P	0640-795-7055		10P20
5905-446-4050		1A20B	0640-795-7055		1A20F5
5905-446-4050		1A20P	0640-795-7055		1A20-005
5905-446-4050		24	0640-795-7055		1A40F55
5905-446-4050	3-2	1A2A1M	8150-554-5545		
5905-446-4050	3-2	1A2A1M			
5905-446-4050	3-3	1A2A1M			
5905-446-4050	3-5	55			
5905-446-4050		00P5			
5905-446-4050		00P5			
5905-446-4050		00P5			
5905-446-4050		1A40Z0			
5905-446-4050		1A40Z0			
5905-446-4050	3-4	24			
5905-446-4050		1A20P4			
5905-446-4050	3-4	27			
5905-446-4050	3-5	1A2A1B3			
5905-446-4050	3-5	23			
5905-446-4050	5-8	23			
5905-446-4050	3-8	2			
5905-446-4050		1A40Z0			
5905-446-4050	3-4	55			
5905-446-4050	3-2	5			
5905-446-4050		00P55			
5905-446-4050		50Z			
5905-446-4050		00P5			
5905-446-4050	3-5	12			
5905-446-4050	3-2	55			
5905-446-4050	3-2	3			
5905-446-4050		00P55			
5905-446-4050		00P5			
5905-446-4050		00P5			
5905-446-4050	3-4	23			
5905-446-4050		1A40A			
5905-446-4050		23			
5905-446-4050		1A40F5			
5905-446-4050	3-4	52			
5905-446-4050	3-4	0			
5905-446-4050	3-4	0			
5905-446-4050	3-4	1A40F5			
5905-446-4050	3-4	20			
5905-446-4050	3-4	5			
5905-446-4050	3-4	16			
5905-446-4050	3-5	14			
5905-446-4050	3-1	3			
5905-446-4050	3-5	2			
5905-446-4050		00P2			
5905-446-4050		0			
5905-446-4050	3-5	5			
5905-446-4050	3-5	5			
5905-446-4050	3-5	3			
5905-446-4050	3-5	3			
5905-446-4050	3-5	10			
5905-446-4050	3-5	1A2A1M5			
5905-446-4050	3-5	20			
5905-446-4050		3			
5905-446-4050	3-5	5			

REFERENCE NO.	FIG. CODE	FIG. NO.	REF. DESIGN. OR ITEM NO.
W1A2540P	4514		50P51
W5181A-775535TILE	05540		50P5
SC1A303			
W5100000TYSK	01340		50P8
W5100000TYPK	01380		50P8
W5100000TYPK	05340		10P15
W1A2540P	05345		00P10
SC00-35-45-53	00043		10P8
W1A2540P-53	00043	3-3	11
W1A2540P-53	00043		50P0
W1A2540P	00045	3-6	10
W1A2540P-000	00045		00P5
W1A2540P	00045		00P1
W1A2540P-0	00045	3-1	12
W1A2540P-0	00045	3-1	15
W1A2540P-0	00045	3-1	10
W1A2540P-0	00045	3-5	10
W1A2540P-0	00045	3-5	1
W1A2540P-5	00045		00P1
W1A2540P-5	00045		00P2
W1A2540P-5	00045		2A1
W1A2540P-5	00045		2A1M5
W1A2540P-5	00045		2A1P2
W1A2540P-5	00045		30P1
W1A2540P-5	00045		50P5
W1A2540P-5	00045		50P8
W1A2540P-2	00045		1A40F5
W1A2540P-4	00045		00P5
W1A2540P-1	00045		00P6

SECTION 0 INDEX-REFERENCE DESIGNATION
CROSS REFERENCE TO PAGE NUMBER

REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER	REFERENCE DESIGNATION	PAGE NUMBER
1	C-3, C-4				
1K04	C-4				
1K07	C-4				
1K08	C-4				
1K09	C-4				
1K010	C-4				
1A2A1K1	D-4				
1A2A1K2	C-4				
1A2A1K3	E-4				
1A2A1KP1	C-4				
1A2H2	C-4				
1A2H3	C-4				
1A2H4	C-4				
1A2H5	C-4				
1A2H7	C-7				
1A2H8	C-7				
1A2H9	C-7				
1A2H10	C-7				
1A2A1KP3	C-4				
1A3H4	C-9				
1A4H2	C-7				
1A4H4	C-7				
1A4H10	C-7				
1A4H11	C-7				
1A4H12	C-7				
1A4H13	C-7				
1A4H14	C-4				
1A4A1KP2	C-7				
1A4HP2	C-7				
1A4HP5	C-9				
1A4HP10	C-9				
1A4HP11	C-4				
2	C-3, C-4				
2A1	D-9				
2B1	C-4				
2A1	D-5, D-9				
2A2HP1	D-9				
2A2HP2	D-9				
3	C-5, C-9				
3K1	C-3				
3K2	C-5, C-9				
3K3	C-3				
3K4	C-3				
3K5	C-3				
3K6	C-3				
3K7	C-5, C-9				
3K8	C-5, C-9				
3K9	C-3				
3K10	C-3				
3K11	C-3				
3K12	C-3				
3K13	C-3				
3K14	C-5, C-9				
3K15	C-3				
3K16	C-3				
3K17	C-3				
3K18	C-3				
3K19	C-3				
3K20	C-3				
3K21	C-10				
3K22	C-10				
3K23	C-10				
3K24	C-10				
3K25	C-10				
3K26	C-10				
3K27	C-10				
3K28	C-10				
3K29	C-10				
3K30	C-10				
3K31	C-10				
3K32	C-10				
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3K40	C-10				
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3K42	C-10				
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3K45	C-10				
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3K47	C-10				
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3K61	C-10				
3K62	C-10				
3K63	C-10				
3K64	C-10				
3K65	C-10				
3K66	C-10				
3K67	C-10				
3K68	C-10				
3K69	C-10				
3K70	C-10				
3K71	C-10				
3K72	C-10				



310-RW-2

Image Intensifier Th232 Less than 30% 5855-054-4890

Radiation Hazard Information: The following radiation hazard information must be read and understood by all personnel before operating or repairing Night Vision Sights AN/PVS-3 and AN/PVS-3A. Hazardous radioactive materials are present in the above listed component of the MK-8200/UV.

The components are potentially hazardous when broken. See qualified medical personnel and the local Radiological Protection Officer (RPO) immediately if you are exposed to or cut by broken components. First aid instructions are contained in TB 43-0122, and AR 755-15.

NEVER place radioactive components in your pocket.

Use extreme care **NOT** to break radioactive components while handling them.

NEVER remove radioactive components from cartons until you are ready to use them.

If any of these components are broken, notify the local RPO immediately. The RPO will survey the immediate area for radiological contamination and will supervise the removal of broken components.

The above listed radioactive components *will not* be repaired or disassembled.

Disposal of broken, unserviceable, or unwanted radioactive components will be accomplished in accordance with the instructions in AR 755-15.

CHANGE }
 No. 4 }

HEADQUARTERS
 DEPARTMENT OF THE ARMY
 WASHINGTON, DC, 31 August 1977

**Organizational and Direct Support Maintenance
 Manual (Including Repair Parts and Special Tools Lists
 NIGHT VISION SIGHTS AN/PVS-3 (NSN 5855-00-832-8341) AND
 AN/PVS-3A (NSN 5855-00-156-4982)**

TM 11-5855-209-23, 20 February 1968, is changed as follows:

1. Title is changed as shown above.
2. Remove and insert pages as indicated below.

<i>Remove</i>	<i>Insert</i>
None	Radiation warning, in front of manual
3. File this change sheet in the front of the manual for reference.

By Order of the Secretary of the Army:

BERNARD W. ROGER
General, United States Army
Chief of Staff

Official:

PAUL T. SMITH
Major General, United States Army
The Adjutant General

DISTRIBUTION:

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TECOM (2)
USACC (4)
TRADOC (2)
OS Maj Comd (4)
MDW (1)
Armies (2) except
7th USA (10)
9th USA (10)
Corps (2)
Ft Gillem (10)
Ft Gordon (10)
Ft Huachuca (10)
Ft Carson (5)
HISA (Ft Monmouth) (20)
Ft Richardson (ECOM Ofc) (2)
Svc Colleges (1)
USAARMS (20)
USALS (20)
USAES (20)
USAADS (18)
USAFAS (5)
USAICE (2)
Ad (1) except
SAAD (20)
LBAD (14)
TOAD (14)
SHAD (2)
USA Dep (2)
Sig Sec USA Dep (2)
Sig Dep (2)
USAIC (2)
MAAG (1)

USARMIS (1)
USAERDAA (1)
USAERDAW (1)
Sig FLDMS (Less Europe) (1)
Units org under fol TOR: 1 ea.
5-25
5-127
5-137
5-146
5-155
5-215
7-15
7-55
7-65
7-66
7-102
11-25
11-25
11-27
11-28
11-29
11-29
11-29
11-217
11-215
11-215
11-500(AA-AG)
17-25
17-52
17-75
17-95
17-106
17-107
20-25
20-25
20-124
20-125
20-127
27-42

ARNG & USAR: None.

For explanation of abbreviations used, see AR 330-50.

(2) Inspect the power and ground contact springs for damage or corrosion.

c. Repair.

(1) Remove burrs from the threads with a small file or emery cloth. Clean the contact springs.

(2) Replace the focusing tube when inspection reveals damage, which renders the focusing tube unserviceable.

d. Replacement. Before replacing the focusing tube (13) and range focus ring (16), make sure that all threads are clean.

(1) Lubricate the threads on the main body (4), focusing tube (13), and range focus ring (16) with silicone compound.

(2) Place the range focus ring (16) on the main body (4). Do not start threads.

NOTE

The zero diopter mark on the focusing tube must be aligned with the focusing tube stop screw hole when performing (3) and (4) below.

(3) Gently insert the focusing tube (13) through range focus ring (16) and into the main body (4).

(4) Turn the range focus ring (16) clockwise until the range focus ring reaches the stop position.

(5) Install the focusing tube stop screw (8) (para 3-12).

3-18. Main Body
(fig. 3-2)

a. Removal.

(1) Remove the objective lens assembly (para 3-14).

(2) Remove the focusing tube (para 3-17).

b. Repair.

(1) Remove burrs from the threads with small file or emery cloth.

(2) Replace the main body with a new main body if inspection reveals any dents, cracks, or other damage which renders the main body unserviceable.

c. Replacement.

(1) Install the objective lens assembly (para 3-14).

(2) Install the focusing tube (para 3-17d).

3-19. Range Focus Ring

Remove, inspect, repair, and replace range focus ring in accordance with paragraph 3-17.

3-20. Bore-sight Mount, AN/PVS-3 and AN/PVS-3A

(figs. 3-2, 3-3, and 3-4)

a. Removal, AN/PVS-3 (fig. 3-3). Remove screw (13) from bore-sight mount (15) and remove strap (12) and spring (14). Retain these components for reassembly.

b. Removal, AN/PVS-3A (fig. 3-2). Loosen the two captive screws (27) and the bore-sight mount (25) will separate from night sight.

c. Disassembly (fig. 3-4).

(1) Place a screwdriver in the slot in pin (1) and relax the tension on pin (2).

(2) Remove pin (2), release and remove pin (1).

(3) Remove retaining ring (3) and lift the crossbar (4) from the bore-sight frame (5).

NOTE

Crossbar on the bore-sight mount for AN/PVS-3 is shown in figure 3-3. The crossbar illustrated in figures 3-2 and 3-4 is the one used with the AN/PVS-3A. Except for this difference, the bore-sight mounts are identical.

(4) Remove the spiral spring (6) from the crossbar (4) and remove captive screws (7) and (8). The flat spring (9) may be pulled out after removal of screw (8).

(5) Remove self-locking screw (10) and unscrew pin (11) from the shaft of knob (12).

(6) Remove knob (12), ball bearings (13 and 14), and compression spring (15) from the bore-sight frame (5).